Clarke®

air

3” CUT-OFF TOOL

Model No: CAT66 & CAT99

Model Nos: 3110730 & 3110855

OPERATING & MAINTENANCE INSTRUCTIONS

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INTRODUCTION

Thank you for purchasing this CLARKE Cut-off Tool.

Before attempting to operate the tool, it is essential that you read this manual thoroughly and carefully follow all instructions given. In doing so you will ensure the safety of yourself and that of others around you, and you can also look forward to the product giving you long and satisfactory service.

GUARANTEE

This CLARKE product is guaranteed against faulty manufacture for a period of 12 months from the date of purchase. Please keep your receipt as proof of purchase.

This guarantee is invalid if the product is found to have been abused or tampered with in any way, or not used for the purpose for which it was intended.

Faulty goods should be returned to their place of purchase, no product can be returned to us without prior permission.

This guarantee does not effect your statutory rights.

ENVIRONMENTAL PROTECTION

Do not dispose of this product or any unwanted materials with general household waste. All tools, accessories and packaging should be sorted, taken to a recycling centre and disposed of in a manner which is compatable with the environment.

SAFETY PRECAUTIONS

WORK ENVIRONMENT

1. Keep the work area clean and tidy.
2. Dress appropriately - do not wear loose clothing or jewellery. Tie long hair out of the way.
3. Keep children and visitors away - do not let children handle the tool. Make sure that any other persons in the work area are suitably dressed and are wearing eye and ear protection.
4. Keep the work area well lit.
5. Although the cut off tool may be used outdoors, do not leave it exposed to the elements. Avoid direct sunlight, direct heat, rain/moisture etc.
6. Keep the air supply hose away from sources of heat, oil and sharp edges.
7. Do not fit the tool to a stand or clamping device that may damage it.

GENERAL USE

1. Always stay alert and use common sense - do not use this product when you are tired or under the influence of alcohol or medication.
2. Always wear eye protection when using the cut-off tool to provide protection from flying particles from the front and the side.
3. Always wear ear protectors when using the cut-off tool .
4. Do not over-reach. Keep proper footing and balance at all times.
5. Never use any type of bottled gas as a source of power for the tool.
6. Do not connect the air supply hose with your finger on the trigger
7. Do not exceed the maximum pressure for the tool: (90 psi / 6 bar).
8. Check air hoses for leaks or worn condition before use and ensure that all connections are secure.
9. Do not use the tool for any purpose other than that described in these instructions.
10. Never carry out any alterations or modifications to this product.
11. Always disconnect from the air supply when:

    Performing any maintenance

    The tool is not in use

    The tool will be left unattended

    Moving to another work area
12. Never force or misuse the tool. It will do a better and safer job at the rate for which it was designed.

13. Never use this product if it is defective / operating abnormally.
14. Never carry the cut-off tool with your finger on the trigger.
15. Quick change couplings should not be located at the tool. They add weight and could fail due to vibration.
16. Always check the cut-off tool for any damage or any condition that could affect its operation. Any damaged part should be properly repaired.
17. Never attempt any repairs yourself. If you have a problem with this product contact your local CLARKE dealer.
18. This product vibrates during use. Vibration may be harmful to your hands or arms. Stop using the cut-off tool if discomfort, a tingling feeling or pain occurs and seek medical advice before resuming use.

CUT-OFF TOOL SAFETY INSTRUCTIONS

1. Always use the cut-off tool in the manner and for the functions described in these instructions.
2. Always ensure the cut-off tool is not moving and disconnected from the air supply when changing discs etc.
3. Due to the possible presence of dust, always wear suitable respiratory protection.
4. Never carry the cut-off tool by the air supply hose.
5. Always disconnect from the air supply when changing discs or when the tool is not required for immediate use in order to avoid accidental starting.
6. Always store this product in a dry, secure place out of reach of children or untrained users.
7. Use both hands where possible to control the cut-off tool .
8. Always ensure the cut-off tool has stopped before putting it down after use.
9. Never use cracked or chipped cutting discs. Always inspect discs for damage before operating.
10. Never use non-reinforced cutting discs. Only use 3"dia max cutting discs rated to at least the max speed of the cut-off tool (i.e.21,000rpm)
11. Never use the cut off tool without disc guard in place.
12. Never use the side of the cutting disc for grinding.
13. Only use the cut-off tool for cutting operations.

Additionally, please keep these instructions in a safe place for future reference.

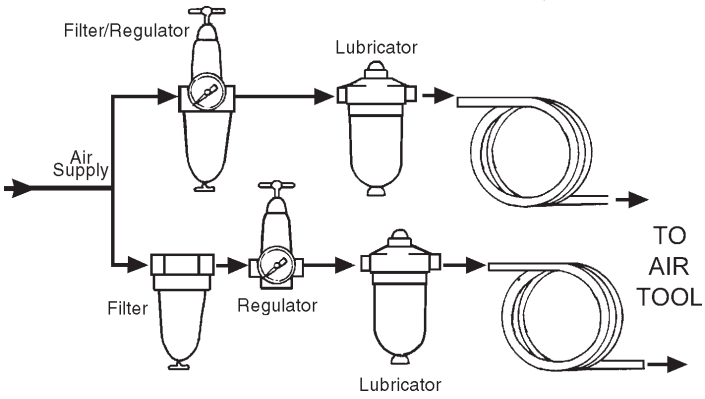
AIR SUPPLY REQUIREMENTS

WARNING: COMPRESSED AIR CAN BE DANGEROUS. ENSURE THAT YOU ARE THOROUGHLY FAMILIAR WITH ALL PRECAUTIONS RELATING TO THE USE OF COMPRESSORS AND COMPRESSED AIR SUPPLY.

- Use only clean, dry, regulated compressed air as a power source.
- Air compressors used with the tool must comply with the appropriate European Community safety directives.
- A build up of moisture in the air compressor will accelerate wear and corrosion in the moving parts. Ensure any moisture is drained from the compressor daily and the inlet filter is kept clean.
- If an unusually long air hose is required, (over 8 metres), line pressure may need to be increased.
- Never exceed the maximum operating pressure for the tool.
- The air hose must be rated at least 150% of the maximum operating pressure of the tool.
- A pressure of 90psi with a flow of 6 cfm is required. Too high an air pressure will shorten the life of the tool due to excessive wear.

A typical airline layout is shown. If an automatic in-line filter/regulator/ lubricator unit is used it will keep the tool in good condition, but should be regularly checked and topped up with oil.

IMPORTANT: If a filter/lubricator unit is not used, the air tool should be lubricated with 2 to 6 drops of oil, at least once a day or after 2 hours work, depending upon the working environment. The oil can be inserted through the airline connection fitting.



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BEFORE USE

CONNECTING THE AIR SUPPLY

WARNING: COMPRESSED AIR CAN BE DANGEROUS. ENSURE THAT YOU ARE FAMILIAR WITH ALL PRECAUTIONS RELATING TO THE USE OF COMPRESSORS AND COMPRESSED AIR SUPPLIES.

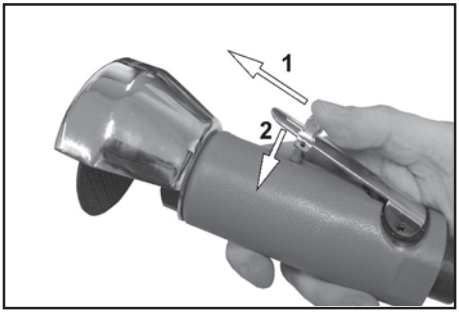
Note: Ensure the compressor is turned off.

1. Remove the plastic blanking plug from the connection port of the tool as shown.
2. Pour 2-3 drops of CLARKE airline oil into the air inlet. This should be done regardless of whether or not a lubricated air supply is to be used.
3. Connect a suitable hose to the tool as shown.
4. Connect the other end of the hose to the compressor. (A whip hose with a quick fit coupling is available from your CLARKE dealer).
5. Turn on the air supply and check for air leaks. Rectify any found before proceeding. The tool is now ready for use.

OPERATION

CAUTION: ENSURE YOU READ, UNDERSTAND AND APPLY SAFETY INSTRUCTIONS BEFORE USE.

1. Push safety lever (mounted on the throttle lever) forward and depress throttle lever.
   - Allow tool to run up to full speed for a couple of seconds before offering disc to work piece.
2. Apply a steady, even pressure. Do not force the tool. Too much pressure can cause disc to break and may even cause injury.



NOTE: DO NOT allow tool to free run for an extended period of time as this will shorten its life.

ADJUSTING THE SPEED

The speed of the cut-off tool can be adjusted using the screw-in regulator in the tool body. A suitable screw-driver will be required.

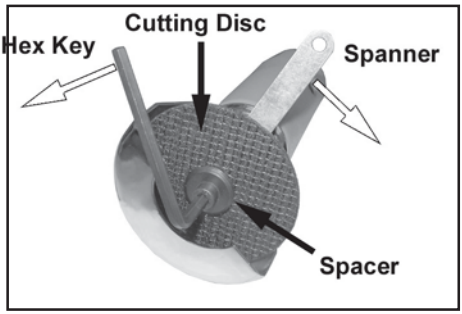
Turn the regulator clockwise or anti-clockwise to suit.

CHANGING THE CUTTING DISC

WARNING: ENSURE AIR IS TURNED OFF AND TOOL IS DISCONNECTED FROM THE AIR SUPPLY BEFORE REPLACING DISC.

1. Ensure the disc being fitted has a speed rating greater than 21,000 RPM.
2. Install disc using spanner and hex key supplied. Ensure that the spacer is in place.

IMPORTANT: The use of parts other than CLARKE replacement parts may result in safety hazards, decreased tool performance and may invalidate your warranty.



Replacement cutting discs are available from your Clarke dealer. Part no 3110731.

DISCONNECTING THE AIR SUPPLY

1. Do not disconnect the air supply hose until the compressor has been shut down and the compressed air pressure released.
2. Once the pressure has been released, disconnect the air supply hose from the tool.

MAINTENANCE

DAILY

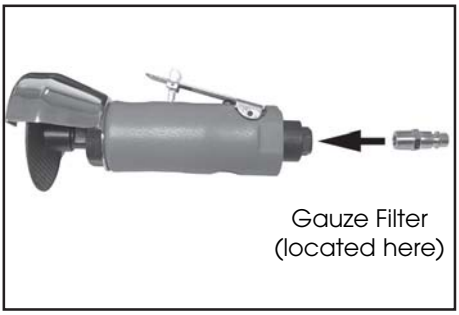
1. Before use, drain water from air reservoir, air line and compressor as appropriate.

2. If no line lubricator is used, ensure that oil is applied to the tool on a daily basis through the air inlet connection.
3. For lubricating the air motor, an air line lubricator should be used, containing Clarke Air Line Oil, adjusted to 2 drops per minute. If this is not possible, run a few drops of oil through the tool. It may be entered into the tool air inlet, (ensuring the strainer is clear), or into the hose at the nearest connection to the air supply. Then operate the tool.

   Clarke Airline Oil is available from your CLARKE dealer, Part No 3050825.

CLEANING

1. Keep the body of the tool clean and free from debris.
2. Grit or gum deposits in the tool may also reduce efficiency. This condition can be corrected by cleaning the air strainer and flushing out the tool with gum solvent oil, or failing this, the tool should be disassembled, thoroughly cleaned, dried and reassembled.
3. After extensive use, remove the inlet screen filter and flush out the mechanism with gum solvent oil or an equal mixture of SAE No10 oil and paraffin. Allow to dry before use.
4. Clean the air inlet filter screen inside the hose adaptor.
5. If the tool runs erratically or becomes inefficient, and the air supply is of good quality, it may be necessary to dismantle the air motor and replace worn or damaged parts. You may prefer to take the tool to your CLARKE dealer if internal maintenance is required.


Gauze Filter
(located here)

Your Clarke cut-off tool has been designed to give long and trouble free service. If, however, having followed the instructions in this booklet carefully, you encounter problems, take the unit to your local Clarke dealer.

SERVICE AND REPAIRS

1. Keep the tool clean at all times, and ensure that the bolts securing the case remain tight.

- All bearings etc, in this machine are lubricated with sufficient high grade lubricant for the machines lifetime under normal operating conditions, therefore no further lubrication is required.
- Be aware that outside factors may effect operation and efficiency, These may include reduced compressor output, excessive drain on the airline, moisture in suspension or restrictions in the line, or the use of connectors of improper size or poor condition which will reduce air supply.

- Any major servicing and repairs should be carried out by your local CLARKE dealer or a qualified service technician.

STORAGE

1. Store the tool safely in its box in a dry, secure environment.
2. If the tool is not to be used for longer than 24 hours, run a few drops of CLARKE airline oil into the air inlet and run the tool for a few seconds to ensure that the oil has been well distributed throughout the tool.
3. When storing, ensure the blanking plug is replaced on the airline connector once the airline has been disconnected.

**Clarke Airline Oil is available from your CLARKE dealer: Part No 3050825

TROUBLESHOOTING

SYMTOM	PROBLEM	SOLUTION
Tool runs at normal speed but slows down under load.	1. Motor parts worn. 2. Worn or sticking mechanism due to lack of lubricant.	1. Return to dealer for overhaul 2. Drip air tool lubricating oil into air inlet and soak moving parts.
Tool runs slowly. Air flows lightly from exhaust.	1. Motor parts jammed with gum &/or dirt particles. 2. Regulator in closed position. 3. General airflow blocked by dirt.	1. Examine inlet air filter for cleanliness. 2. Adjust regulator to open position. 3. Operate tool in short bursts of forward/reverse rotation.
Tool will not run. Air flows freely from exhaust.	1. Motor vanes stuck due to buildup of foreign material.	1. Disconnect air supply & rotate tool assembly manually. 2. Try operating tool in short bursts of forward/reverse rotation. 3. Tap motor housing gently with rubber mallet. 4. Drip a few drops of air tool lubricating oil into the air inlet to soak moving parts.
Tool will not shut off.	1. Throttle O-rings damaged or not seated correctly.	1. Replace O-ring or return to Clarke dealer for repair.

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ACCESSORIES

A wide range of airline accessories is available from your nearest CLARKE dealer, for further information, contact your nearest dealer, or telephone CLARKE International Sales department on 01992 565300.

Suitable air line accessories include air filter/regulators, lubricators, hoses, snap couplings, clips, gauges, valves.

Packs of 5 replacement cutting discs are available from your CLARKE dealer: Part No 3110731

TECHNICAL SPECIFICATION

Feature	Specification
Net Weight	0.9 kg
Dimensions (l x w x h) mm	195 x 85 x 67 (without disc)
Airline Connection size	1/4" BSP
Min Air Hose Size	5/16" (8mm dia)
Maximum Air Pressure requirement	90 psi (6.2 bar)
Maximum free speed	20,000 rpm
Cutting Disc Size	3" x 1/16" (76mm x 1.6mm)
Nominal Air Consumption	4.0 cfm
Sound pressure level (Lp)	92 dB(A)
Sound power level measured (Lw)	103 dB(A)
Sound power level	100 dB(A)

Please note that the details and specifications contained herein, are correct at the time of going to print. However, CLARKE International reserve the right to change specifications at any time without prior notice.

VIBRATION EMISSIONS

HAND-ARM VIBRATION

Employers are advised to refer to the HSE publication "Guide for Employers".

All hand held power tools vibrate to some extent, and this vibration is transmitted to the operator via the handle, or hand used to steady the tool. Vibration from about 2 to 1500 herz is potentially damaging and is most hazardous in the range from about 5 to 20 herz.

Operators who are regularly exposed to vibration may suffer from Hand Arm Vibration Syndrome (HAVS), which includes 'dead hand', 'dead finger', and 'white finger'. These are painful conditions and are widespread in industries where vibrating tools are used.

The health risk depends upon the vibration level and the length of time of exposure to it……in effect, a daily vibration dose.

Tools are tested using specialised equipment, to approximate the vibration level generated under normal, acceptable operating conditions for the tool in question. For example, a grinder used at 45° on mild steel plate, or a sander on softwood in a horizontal plane etc.

These tests produce a value'*a*', expressed in metres per second per second, which represents the average vibration level of all tests taken, in three axes where necessary, and a second figure 'K', which represents the uncertainty factor, i.e. a value in excess of 'a', to which the tool could vibrate under normal conditions. These values appear in the specification panel below.

MODEL Nos:	**CAT66 & CAT99**
DESCRIPTION:	**3" CUT-OFF TOOL**

Declared vibration emission value in accordance with EN12096	
Measured vibration emission value - *a:*	<2.5m/s^2
Uncertainty value - *K:*	_____
Highest measured reading in a single plane	1.9m/s^2
Values determined according to EN28622-2	

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You will note that a third value is given in the specification - the highest measured reading in a single plane. This is the maximum level of vibration measured during testing in one of the axes, and this should also be taken into account when making a risk assessment.

`*a*' values in excess of 2.5 m/s^2 are considered hazardous when used for prolonged periods. A tool with a vibration value of 2.8 m/s^2 may be used for up to 8 hours (cumulative) per day, whereas a tool with a value of 11.2 m/s^2 may be used for ½ hour per day only.

The graph below shows the vibration value against the maximum time the respective tool may be used, per day.

The uncertainty factor should also be taken into account when assessing a risk. The two figures `*a*' and `*K*' may be added together and the resultant value used to assess the risk.

It should be noted that if a tool is used under abnormal, or unusual conditions, then the vibration level could possibly increase significantly. Users must always take this into account and make their own risk assessment, using the graph above as a reference.

Some tools with a high vibration value, such as impact wrenches, are generally used for a few seconds at a time, therefore the cumulative time may only be in the order of a few minutes per day. Nevertheless, the cumulative effect, particularly when added to that of other hand held power tools that may be used, must always be taken into account when the total daily dose rate is determined.

DECLARATION OF CONFORMITY

Clarke
INTERNATIONAL
This is an important document and should be retained
DECLARATION OF CONFORMITY
We declare that this product complies with the following standards/directives:
89/392/EEC
EN 292-2
EN 60 335 - 1
EN 292-2
Description: Air tool range
Model No: CAT66
Serial (Batch) No: See Product Data Label
Signed:
Clarke INTERNATIONAL
Hemnall Street, Epping, Essex CM16 4LG
DOC No. IK078/27
Clarke International is a trading style of Clarke International Limited
Clarke
INTERNATIONAL
This is an important document and should be retained
DECLARATION OF CONFORMITY
We declare that this product complies with the following standards/directives:
89/329/EEC
EN 292-2
Description: AIRTOOL
Model No: CAT99
Serial (Batch) No: See Product Data Label
Signed:
Clarke INTERNATIONAL
Hemnall Street, Epping, Essex CM16 4LG
DOC No. IK078/27
Clarke International is a trading style of Clarke International Limited

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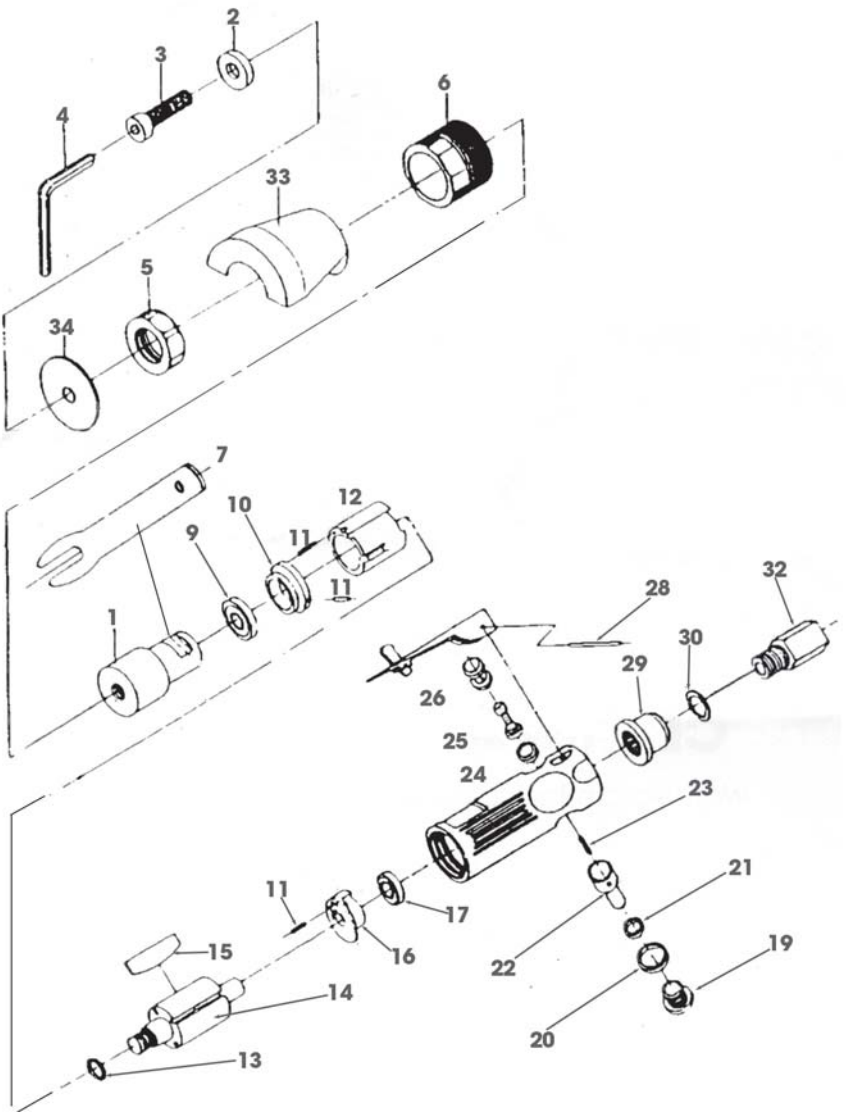
PARTS LIST

No	Description	Part No	Qty
1	End Collet	KL692001	1
2	Spacer	KL692002	1
3	Hexagonal Screw	KL692003	1
4	Allen Key	KL692004	1
5	Nut	KL692005	1
6	Retainer	KL692006	1
7	Spanner	KL692007	1
8	N/a		
9	Ball Bearing	KL692009	1
10	Front End Plate	KL692010	1
11	Pin	KL692011	3
12	Cylinder	KL692012	1
13	Bearing Spacer	KL692013	1
14	Rotor	KL692014	1
15	Rotor Blade	KL692015	4
16	Rear Plate	KL692016	1
17	Ball Bearing	KL692017	1

No	Description	Part No	Qty
18	Motor Housing	KL692018	1
19	Valve Screw	KL692019	1
20	'O' Ring	KL692020	1
21	'O' Ring	KL692021	1
22	Air Regulator	KL692022	1
23	Spring	KL692023	1
24	'O' Ring	KL692024	1
25	Throttle	KL692025	1
26	Valve	KL692026	1
27	Throttle Lever	KL692027	1
28	Throttle Lever Pin	KL692028	1
29	Exhaust Deflector	KL692029	1
30	'O' Ring	KL692030	1
31	n/a		
32	Inlet Bushing	KL692032	1
33	Plastic Protector	KL692033	1
34	Cutting Disc	KL692034	1

The above parts list apply equally to the CAT66 and CAT99. The only difference is that the external parts of the CAT99 are highly pollished and include rubber grips. Should these parts be required, please contact your nearest Clarke dealer, while referring to the parts list above.

PARTS DIAGRAM



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